Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Please cancel claims 1-3, 5, 10, 13, 16-18, 20, 25, 27, 28, 30, 40-43, 45-47 and 49 without prejudice.

Please amend claims 4, 6-9, 11, 12, 14, 19, 21-24, 26, 29, 31-38 and 48 as indicated below (material to be inserted is in **bold and underline**, material to be deleted is in ~~strikeout~~ or (if the deletion is of five or fewer consecutive characters or would be difficult to see) in double brackets [[ ]]):

Listing of Claims:

1. (Cancelled)

2. (Cancelled)

3. (Cancelled)

4. (Currently Amended) ~~The semiconductor device of claim 2, where the~~ **A semiconductor device, comprising:**

a source electrode;

a drain electrode;

a channel coupled to the source electrode and the drain electrode and comprised of a ternary compound containing zinc, tin and oxygen, where at least a portion of the channel is formed from a zinc-tin oxide compound [[has]] **having** the following stoichiometry: Zn_2SnO_4**; and**

a gate electrode configured to permit application of an electric field to the channel.

5. (Cancelled)

6. (Currently Amended) The semiconductor device of claim [[2]] **4**, where the zinc-tin oxide compound is substantially amorphous.

7. (Currently Amended) The semiconductor device of claim [[2]] **4**, where one or more of the source, drain, and gate electrodes is fabricated so as to be at least partially transparent.

8. (Currently Amended) The semiconductor device of claim [[2]] **4**, where the channel further includes phase-segregated ZnO.

9. (Currently Amended) The semiconductor device of claim [[2]] **4**, where the channel further includes phase-segregated SnO_2.

10. (Cancelled)

11. (Currently Amended) The semiconductor device of claim [[1]] **4**, where the channel is adapted to be deposited using an RF sputtering process.

12. (Currently Amended) The semiconductor device of claim [[1]] **4**, where the source electrode and the drain electrode are formed from an indium-tin oxide material, and are patterned so that the source electrode and drain electrode are physically separate from one another.

13. (Cancelled)

14. (Currently Amended) ~~The semiconductor device of claim 13,~~ **A semiconductor device, comprising:**

a source electrode;

a drain electrode;

a channel coupled to the source electrode and the drain electrode and comprised of a ternary compound containing zinc, tin and oxygen; and

a gate electrode configured to permit application of an electric field to the channel, where the gate electrode is physically separated from the channel by a dielectric material, and where the dielectric material is an aluminum-titanium oxide material.

15. (Original) The semiconductor device of claim 14, where the dielectric material includes:

a first outer layer immediately adjacent to and in contact with the channel layer;

a second outer layer immediately adjacent to and in contact with the gate electrode, where the first and second outer layers are each formed from Al_2O_3; and

alternating interior layers of AlO_x and TiO_y between the first and second outer layers, where x and y are positive nonzero values.

16. (Cancelled)

17. (Cancelled)

18. (Cancelled)

19. (Currently Amended) ~~The semiconductor device of claim 17, where the~~ **A three-port semiconductor device, comprising:**

a source electrode;

a drain electrode;

a gate electrode; and

means for providing a channel disposed between the source electrode and drain electrode, the means for providing a channel configured to permit movement of electric charge therethrough between the source electrode and the gate electrode in response to a voltage applied at the gate electrode, the means for providing a channel formed at least in part from a ternary compound containing zinc, tin and oxygen, where the means for providing a channel includes means for providing a semiconductor formed from a zinc-tin oxide compound [[has]] **having** the following stoichiometry: Zn_2SnO_4.

20. (Cancelled)

21. (Currently Amended) The semiconductor device of claim [[17]] **19**, where the means for providing a semiconductor is substantially amorphous.

22. (Currently Amended) The semiconductor device of claim [[17]] **19**, where one or more of the source, drain, and gate electrodes is fabricated so as to be at least partially transparent.

23. (Currently Amended) The semiconductor device of claim [[16]] **19**, where the source electrode and the drain electrode are formed from an indium-tin oxide material, and are patterned so that the source electrode and the drain electrode are physically separate from one another.

24. (Currently Amended) The semiconductor device of claim [[16]] **19**, further comprising means for providing a dielectric disposed between and physically separating the gate electrode from the means for providing a channel.

25. (Cancelled)

26. (Currently Amended) The thin-film transistor of claim [[25]] **29**, where the thin-film transistor is configured so that the ability of the channel layer to convey electric charge between the first and second electrodes in response to a potential difference applied across the first and second electrodes is dependent upon a gate voltage applied at the gate electrode.

27. (Cancelled)

28. (Cancelled)

29. (Currently Amended) ~~The thin-film transistor of claim 27, where the~~ **A thin-film transistor, comprising:**

a gate electrode;

a channel layer formed from a zinc-tin oxide material;

a dielectric material disposed between and separating the gate electrode and the channel layer; and

first and second electrodes spaced from each other and disposed adjacent the channel layer on a side of the channel layer opposite the dielectric material, such that the channel layer is disposed between and electrically separates the first and second electrodes, where at least a portion of the channel layer is formed from a zinc-tin oxide compound [[has]] **having** the following stoichiometry: Zn_2SnO_4.

30. (Cancelled)

31. (Currently Amended) The thin-film transistor of claim [[27]] **29**, where the zinc-tin oxide compound is substantially amorphous.

32. (Currently Amended) The thin-film transistor of claim [[27]] **29**, where one or more of the source, drain, and gate electrodes is fabricated so as to be at least partially transparent.

33. (Currently Amended) The thin-film transistor of claim [[27]] **29**, where the channel layer further includes phase-segregated ZnO.

34. (Currently Amended) The thin-film transistor of claim [[27]] **29**, where the channel layer further includes phase-segregated SnO_2.

35. (Currently Amended) The thin-film transistor of claim [[25]] **29**, where one or more of the source, drain, and gate electrodes is fabricated so as to be at least partially transparent.

36. (Currently Amended) The thin-film transistor of claim [[25]] **29**, where the channel layer is adapted to be deposited using an RF sputtering process.

37. (Currently Amended) The thin-film transistor of claim [[25]] **29**, where the first and second electrodes are formed from an indium-tin oxide material, and are patterned so that the first and second electrodes are physically separate from one another.

38. (Currently Amended) ~~The thin film transistor of claim 25,~~ **A thin-film transistor, comprising:**

a gate electrode;

a channel layer formed from a zinc-tin oxide material;

a dielectric material disposed between and separating the gate electrode and the channel layer, where the dielectric material is an aluminum-titanium oxide material**; and**

first and second electrodes spaced from each other and disposed adjacent the channel layer on a side of the channel layer opposite the dielectric material, such that the channel layer is disposed between and electrically separates the first and second electrodes.

39. (Original) The thin-film transistor of claim 38, where the dielectric material includes:

a first outer layer immediately adjacent to and in contact with the channel layer;

a second outer layer immediately adjacent to and in contact with the gate electrode, where the first and second outer layers are each formed from Al_2O_3; and

alternating interior layers of AlO_x and TiO_y between the first and second outer layers, where x and y are positive nonzero values.

40. (Cancelled)

41. (Cancelled)

42. (Cancelled)

43. (Cancelled)

44. (Cancelled)

45. (Cancelled)

46. (Cancelled)

47. (Cancelled)

48. (Currently Amended) ~~The display of claim 46, where the~~ **A display, comprising:**

a plurality of display elements configured to operate collectively to display images, where each of the display elements includes a semiconductor device configured to control light emitted by the display element, the semiconductor device including:

a source electrode;

a drain electrode;

a channel coupled to the source electrode and the drain electrode and comprised of a ternary compound containing zinc, tin and oxygen, where at least a portion of the channel of the semiconductor device is formed from a zinc-tin oxide compound has the following stoichiometry: Zn_2SnO_4; **and**

a gate electrode configured to permit application of an electric field to the channel.

49. (Cancelled)